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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,428	12/05/2000	Paul Lippens	CASM116373	8709

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EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 10/23/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

*24*

**Office Action Summary**

Application No.

09/673,428

Applicant(s)

LIPPENS ET AL.

Examiner

Catherine Simone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 19-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 and 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Group I, claims 1-18, in Paper No. 10 is acknowledged. The traversal is on the grounds that since all other claims on file are dependent on claim 1, applicants submit that all claims share the same "special technical features." This is not found persuasive because the special technical features of the claimed invention are not found to define a contribution over the prior art, and no single inventive concept exists.

Claims 19-32 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 10.

### *Claim Objections*

2. Claim 1 is objected to because of the following informalities: "characterised" should read "characterized". Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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The term "soft" in claims 1, 9, 10 and 15-18 is a relative term which renders the claim indefinite. The term "soft" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Clarification is requested.

Claim 1 recites the limitations "the shape" and "the embossed pattern" in lines 4 and 5. There is insufficient antecedent basis for these limitations in the claim.

The recitation "at least partially" in claim 1 is deemed vague and indefinite. Clarification is required.

The recitation "the form of a diffraction grating device" in claim 1 is deemed vague and indefinite. Clarification is requested.

The recitation "essentially of" in claims 9 and 10 is deemed vague and indefinite. Clarification is requested.

The recitation "the shape of the embossed pattern of the embossed layer is only embossed on a single soft-magnetic layer" in claim 14 is deemed vague and indefinite. Clarification is requested.

Claim 15 recites the limitation "the material" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The recitation "non-work-hardened layer" in claim 16 is deemed vague and indefinite. Clarification is requested.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-5 and 8-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suess et al. (5,383,687) in view of Pettigrew et al. (4,960,651).

Suess et al. discloses a security element comprising a magnetic layer (Fig. 3, #4) and an embossed layer (Fig. 3, #8), the embossed layer having the form of a diffraction grating device (see col. 2, lines 45-50). However, Suess et al. fails to disclose the magnetic layer being a soft-magnetic layer. Pettigrew et al. teaches in the analogous art a soft-magnetic layer (see col. 1, lines 32-34) for the purpose of producing a security element with high intrinsic permeability and low coercivity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a soft-magnetic layer in Suess et al. as suggested by Pettigrew et al. in order to produce a security element with high intrinsic permeability and low coercivity.

Regarding **claim 2**, Suess et al. discloses a metal layer with a high specular reflectance (see col. 2, line 28). Regarding **claim 3**, Suess et al. discloses the metal layer is chosen from the group recited in claim 3 (see col. 6, lines 29-31). Regarding **claim 4**, Suess et al. discloses the metal layer is aluminum (see col. 2, lines 19-21). Regarding **claim 5**, Suess et al. discloses an adhesive layer (Fig. 3, #13). Regarding **claim 8**, Suess et al. discloses the diffraction grating

device is embossed as to form a hologram (see col. 2, line 47). Regarding **claim 9**, Pettigrew et al. discloses the soft magnetic layer consisting essentially of an alloy containing cobalt and niobium, together with a glass-forming element (see col. 5, lines 27-29). Regarding **claim 10**, Pettigrew et al. discloses the soft magnetic layer consisting essentially of an alloy containing cobalt, iron, silicon and boron (see col. 5, line 58). Regarding **claim 11**, Pettigrew et al. discloses the alloy containing Ni (see col. 5, lines 58-59). Regarding **claims 12 and 13**, Pettigrew et al. discloses the alloy having the formula  $\text{Co}_a \text{Fe}_b \text{Ni}_c \text{Mo}_d \text{Si}_e \text{B}_f$  (see col. 5, lines 60-65 and col. 6, lines 9-11). Regarding **claim 14**, Suess et al. discloses the shape of the embossed pattern of the embossed layer (Fig. 3, #8) is only embossed on a single soft-magnetic layer (Fig. 3, #4). Regarding **claim 15**, Pettigrew et al. discloses the material of the soft magnetic layer has a coercive force in the range of 3 A/m to 500 A/m (see col. 7, lines 25-30). Regarding **claim 17**, Pettigrew et al. discloses a soft magnetic layer being a sputtered layer (see col. 5, line 1). Regarding **claim 18**, Pettigrew et al. discloses the affect on the magnetic properties of the soft magnetic layer is at least a change in coercive force of 10% or a change in a relative permeability of at least 10% (see col. 1, lines 35-41).

7. **Claims 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suess et al. (5,383,687) in view of Pettigrew et al. (4,960,651) and in further view of Chamberlain (5,762,377).

Suess et al. discloses a security element comprising a magnetic layer (Fig. 3, #4) and an embossed layer (Fig. 3, #8), the embossed layer having the form of a diffraction grating device (see col. 2, lines 45-50). However, Suess et al. fails to disclose the magnetic layer being a soft-magnetic layer. Pettigrew et al. teaches in the analogous art a soft-magnetic layer (see col. 1,

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lines 32-34) for the purpose of producing a security element with high intrinsic permeability and low coercivity. Furthermore, Pettigrew et al. and Suess et al. both fail to teach the adhesive layer being an ethylenically unsaturated carboxylic acid-based resin. Chamberlain teaches in the analogous art an adhesive layer being an ethylenically unsaturated carboxylic acid-based resin (see col. 15, lines 60-65) for the purpose of producing a security element with a sufficiently strong connection.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a soft-magnetic layer in Suess et al. as suggested by Pettigrew et al. in order to produce a security element with high intrinsic permeability and low coercivity. Also, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the adhesive layer in Suess et al. with an ethylenically unsaturated carboxylic acid-based resin as suggested by Chamberlain in order to produce a security element with a sufficiently strong connection.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents are cited for further teachings of security elements similar to that instantly disclosed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703) 605-4297. The examiner can normally be reached on 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.




Catherine Simone  
Examiner  
Art Unit 1772

October 18, 2002



HAROLD PYON  
SUPERVISORY PATENT EXAMINER



10/19/02